

Metering Systems and Meter Reading PSWG Subcommittee Report

Group Charge

Develop recommendations to the Process Standardization Working Group on content of proposed business transactions and electronic transmission related to metering systems and meter reading, including transaction errors.

Steps to Achieve Best Practice

The subcommittee participants (Appendix M-1) conducted the following steps:

1. Flow chart current business processes by APS, SRP, TEP, Citizens
2. Identify related policy and implementation issues
3. Flowchart of the ideal processes
4. Identify best practices and related documentation, using operating principles as guidelines
5. Recommend to PSWG the best model for these transactions in the Arizona Market
6. Develop recommendations on related policy, implementation issues and timeline.

Summary of Best Practices

This section of the report contains information specific to metering transactions used between the Utility Distribution Companies and the Providers (i.e. MSP, ESP). The efforts of the subcommittee group thus far have primarily focused around the following process:

Best Practice #1 - Meter Exchange processes for the initial switch to Direct Access services from Standard Offer services

It was agreed upon by the participants, to start with Best Practice #1 since this is the first metering transaction encountered by the Market Participants. Standardizing this process required the group to look at not only the business processes, Rules and timing requirements that many of the Utilities already have in place but also, proposals from Providers on how they would like to do business.

The AZ Best Practice in this report will have proposed data elements, business rules and forms or transport mechanisms to be followed in association with each process. Additionally, each section will identify if the proposal is a business process that has been agreed to standardize between the UDCs and the Providers which requires **NO** Commission action or a proposal that requires Commission action (i.e. Rule or UDC Tariff change). Additionally, all supporting documentation will be included either in the report or in the Appendix to the report.

Description of Best Practice

Best Practice #1 *Meter Exchange processes for the initial switch to Direct Access services from Standard Offer services*

When a customer has selected an alternative Electric Supplier in the competitive market, there are several processes that must take place in order for the customer to switch to the new provider. Depending on the type or load size of the customer, there may be a requirement for a new meter to be installed by the new provider. The information below for the proposed AZ Best Practice for this process includes standardization of the:

- Data elements that must be exchanged between Market Participants
- Forms used to exchange the data elements
- Various business rules associated with this process

In the beginning stages of the subcommittee meetings the Utilities presented their existing process flows for this scenario (Appendix M-2). After reviewing the flows it was discovered that APS, SRP, Tucson Electric Power Company and Citizens Utility Company had similarities for this specific process. The following table identifies the high level common steps that the aforementioned Utilities currently require for a customer switch to Direct Access from Standard Offer when a meter exchange is involved.

Process Step	Process Description
Step 1	A Direct Access Service Request (DASR) is received by the UDC from the ESP
Step 2	The UDC sends information about the existing meter to the ESP and the MSP
Step 3	The MSP sends information regarding the expecting exchange date to the UDC
Step 4	After the meter is exchanged, the MSP sends information regarding the newly installed meter to the UDC

Although each Utility has different timing requirements, data elements and business rules for each of the above steps, they each utilize a hardcopy form to exchange meter information for steps 2-4. The first step for this process was to standardize the data elements and the forms used in steps 2-4 so at a minimum, providers would have the same requirements when operating in multiple service territories. The subsequent steps would be to look at timing requirement and business rules associated with each step.

The Utilities met on numerous occasions, independent of the subcommittee meetings, in an effort to develop a proposal to standardize steps 2-4. Currently, each Utility has

different names for their forms used for steps 2-4. It was agreed to follow the California & CUBR models for the names of the proposed AZ forms. They are as follows:

Process Step	Form Name	Process Description
Step 1		A Direct Access Service Request (DASR) is received by the UDC from the ESP
Step 2	EMI = Existing Meter Information EPA = Equipment Purchase Authorization	The UDC sends information about the existing meter to the ESP and the MSP
Step 3	MDCR = Meter and Data Communication Request	The MSP sends information regarding the expecting exchange date to the UDC
Step 4	MIRN = Meter Installation/Removal Notification	After the meter is exchanged, the MSP sends information regarding the newly installed meter to the UDC

Each of the forms above has different data element requirements specific to its use. The data element requirements that the utilities are currently requiring were documented and compared to each other in an effort to standardize between participating Utilities. The comparison led to the Proposed Data Elements for process number 1 for AZ. The final step was to compare the Proposed Data Elements for AZ to the National Standards, UIG and CUBR documents (Appendix M-3). After comparing our work to the National Standards, the final proposed version of the AZ Data Element requirements was identified for each of the forms above.

AZ Best Practice Data Element Requirements (Best Practice # 1)

The following table identifies the agreed upon data element requirements when customers leave the UDC Standard Offer services for Direct Access services with a new Provider and a meter exchange is required/requested. ***Note:*** *The standardization of the data elements is a business process agreed upon between the Utilities and the Providers and does **NOT** require Commission action.*

[[[Insert AZ Ideal Data Element table]]]

AZ Best Practice Meter Activity Forms

After the data elements were identified, the working group developed the actual hardcopy EPA, EMI, MDCR & MIRN forms that would be used as standardized tools to exchange meter information between the UDCs and the Providers. The proposed forms can be found in Appendix M-4. ***Note:*** *The standardization of the Meter Activity Forms is a business process agreed upon between the Utilities and the Providers and does **NOT** require Commission action.*

AZ Best Practice Business Rules (Best Practice #1)

In addition to the data elements required on the EPA, EMI, MDCR & MIRN, there are business rules associated with each process step. A document was developed to show the comparison of current Utility business rules for each step as well as a comparison against a National Standard (Appendix M-5). The following table identifies the proposed business rules associated with Best Practice #1. Additionally, the table indicates whether a rule change is required, clarification of Staff's interpretation is needed, UDC Tariff change is needed, if it is a business process between the Utilities and the Providers or if consensus was not reached. A high-level flow chart for Best Practice #1 can be seen in Appendix M-6.

Legend:

RC = ACC Competition Rule Change Required

CSI = Clarification of ACC Staff's interpretation

NC = No Consensus

UTC= UDC Tariff Change Required

UPP= UDC and Providers Process, NO ACC action Needed

N/A= No Action Needed

Proposed AZ Best Practice	RC	CSI	UTC	UPP	N/A	NC
BEST PRACTICES WILL BE INSERTED UPON APPROVAL BY THE METERING SUBCOMMITTEE GROUP – PLEASE REFER TO “PROPOSED ARIZONA BUSINESS PRACTICE FOR BUNDLED CUSTOMER (meter exchange) TO DIRECT ACCESS.						

Market Benefits

To be determined by Subcommittee

Implementation Plan

- Each Market Participant will need to identify when each process can be implemented within their organizations
- Waivers will need to be submitted by Utilities for those Best Practices within each process that require a rule change

Next Steps

- Develop short term method for transmitting data electronically in a flexible format (i.e. CSV, Excel) for the EPA, EMI, MDCR & MIRN forms
- Develop data element definition document (on-going for all Best Practices)
- Develop AZ Metering Handbook (on-going for all Best Practices)
- Begin work on other Best Practices:
 - Customer returning to UDC Standard Offer from Direct Access
 - ESP to ESP switch requiring meter work
 - Disconnect requiring meter work
 - Routine meter test
 - Notification of meter maintenance
 - Cancel DASR
 - Update Active DASR requiring metering work
 - MSP/UDC UN-schedules installation
 - Notification of electrical system change and permit request
 - Meter installation and approval process
 - Meter installation and energizing of electrical panel
 - Late MIRN notifications for DASR related work
- Develop 650 Implementation Guide
- Begin looking at Meter Reading Issues and Processes
- Develop scenarios for exception reporting to be used for the Exception Reporting Subcommittee

Issues Resolved

**[[INSERT RESOLVED METERING ISSUES FROM MASTER ISSUES LIST
Appendix M-7]]**

Issues Outstanding

**[[INSERT UN-RESOLVED METERING ISSUES FROM MASTER ISSUES LIST
Appendix M-8]]**

Appendix will include:

M-1	Subcommittee Participants
M-2	Utility Flows
M-3	Data Elements Comparison Document
M-4	Sample EPA, EMI, MDCR, MIRN Forms
M-5	Business Rule Comparison Document
M-6	Best Practice #1 High Level Flow
M-7	Issues Resolved
M-8	Issues Un-Resolved
M-9	Proposed AZ Best Practice
M-10	Provider Proposals